

INVENTOR: Hoffman, David M.

S/N: 09/683,888

REMARKS

Claims 1, 4-25, and 28-31 are pending in the present application. In the Office Action mailed December 5, 2003, the Examiner objected to the drawings under 37 C.F.R. 1.83(a). The Examiner then objected to claim 29 because of informalities. The Examiner set forth two bases of rejections for claims 1, 4-25, and 29-31 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement.

Applicant appreciates the Examiner's allowance of claim 28 and the indication that the rejections under 35 U.S.C. §§102, 103 have been withdrawn.

The Examiner has objected to the drawings for failing to show every feature of the invention specified in the claims and, specifically, "the mechanism that produces light amplification claimed in claims 1, 4-25, and 29-31." However, Applicant has not "claimed" the mechanism that produces light amplification. Applicant discloses in the Detailed Description of the Invention (see ¶[0033]) that a laser or other means may be used for light amplification; however, Applicant has not claimed a laser or other means. Applicant claims in claim 1, for instance, a fiber optic scintillator cell comprising a first component formed of scintillating material designed to output light in response to electromagnetic energy incidence thereon and a second component formed of optically stimulatable material configured to output light at an intensity greater than that output by the block of scintillating material. The Examiner is incorrect in asserting that the mechanism for producing light amplification is being claimed.

Applicant has claimed that the scintillator cell "comprises" two components. A first component that outputs light at a first intensity and a second component that outputs light at a second intensity that is greater than the first intensity. These two components are shown in the Figures. The description of the invention describes a mechanism by which this light amplification may be achieved, e.g. a laser, but such a light mechanism is not claimed and, therefore, that feature is not required to be shown in the drawings. Accordingly, Applicant requests withdrawal of the objection to the drawings.

The Examiner has rejected claims 1, 4-25, and 29-31 as failing to comply with the enablement requirement and, specifically, for failing "to disclose a mechanism for light amplification or producing an optical gain in the optically stimulatable material." Applicant respectfully disagrees. Applicant refers the Examiner to paragraph [0033] of the Application which states that the "[t]he optically stimulated material may be comprised of those materials that may be pumped to an excited state by a laser or other

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means thereby yielding or triggering a cascading of multiple emissions." Accordingly, one skilled in the art would readily appreciate that the optically stimulatable material called for in the claims may be pumped to an excited state for the cascading of optical emissions with a laser or other means.

Additionally, Applicant discloses that the optically stimulated material may include Erbium doped glass, such as that used in the fiber optic industry, as a fiber optic amplifier. As such, Applicant disclosed that the optically stimulatable material may be pumped by a laser mechanism and gave an example of an exemplary optically stimulatable material contemplated as being applicable with the present invention. In light of at least these two teachings, Applicant believes that one skilled in the art would be able to make and/or use the claimed invention.

The Examiner also rejected claims 1, 4-25, and 29-31 as non-enabling because "the specification, while being enabling for providing a scintillator that converts x-rays into visible light, does not reasonably provide enablement for providing a scintillator that converts electromagnetic energy outside x-rays into visible light." Applicant disagrees with the Examiner's conclusion that the Specification, when understood by one skilled in the art, only enables the projection and detection of x-rays. Consistent with well-established patent law, the claims define the metes and bounds of the invention. In contrast, the written description describes at least the best mode of carrying out the invention. As such, it is generally recognized that the claims may be broader than the best mode of the invention set forth in the Specification.

Applicant acknowledges that the preferred mode of carrying out the invention is through the detection of x-rays attenuated by a subject. However, as set forth in the Specification, one of ordinary skill in the art will appreciate, that the present invention is equally applicable for the detection and conversion of other high frequency electromagnetic energy. As such, Applicant believes that the claiming of "high frequency electromagnetic energy" is supported by the Specification. Accordingly, Applicant believes the Examiner's rejection cannot be sustained. As such, Applicant respectfully believes that claims 1, 4-25, and 29-31 are enabled.

Regarding the objection to claim 29, Applicant has amended the claim to incorporate the terminology suggested by the Examiner.

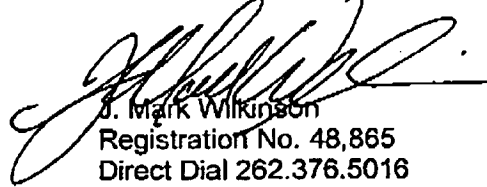
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Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1, 4-25, and 28-31.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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Dated: January 30, 2004
Attorney Docket No.: GEMS8081.097.

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